Progress during last week:

1. Common storage RF operational (Mike Brennan, rf group)
   → Debunching rate reduced by about 20% (4193 vs. 4236)
2. Changed collision pattern
   → 56 collisions/turn for Brahms and Phenix, 52 for Phobos and Star
3. Increased Blue bunch intensity to >0.8e9 routinely
   → More luminosity
4. Machine development (see next slide)

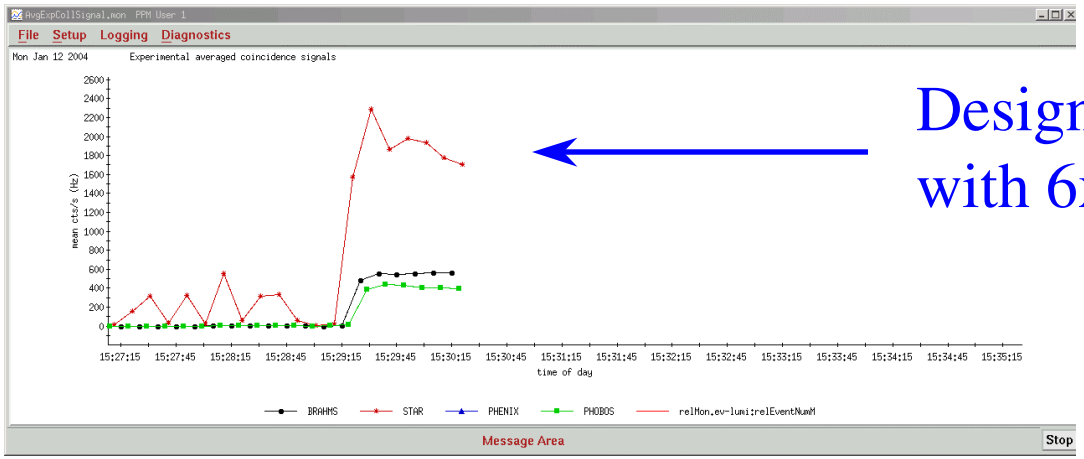
Problems during last week:

1. Recovery from maintenance
2. Emittance growth on ramp in Yellow (resolved)
3. Multiple problems on Saturday (not all related)

Machine development on Monday:

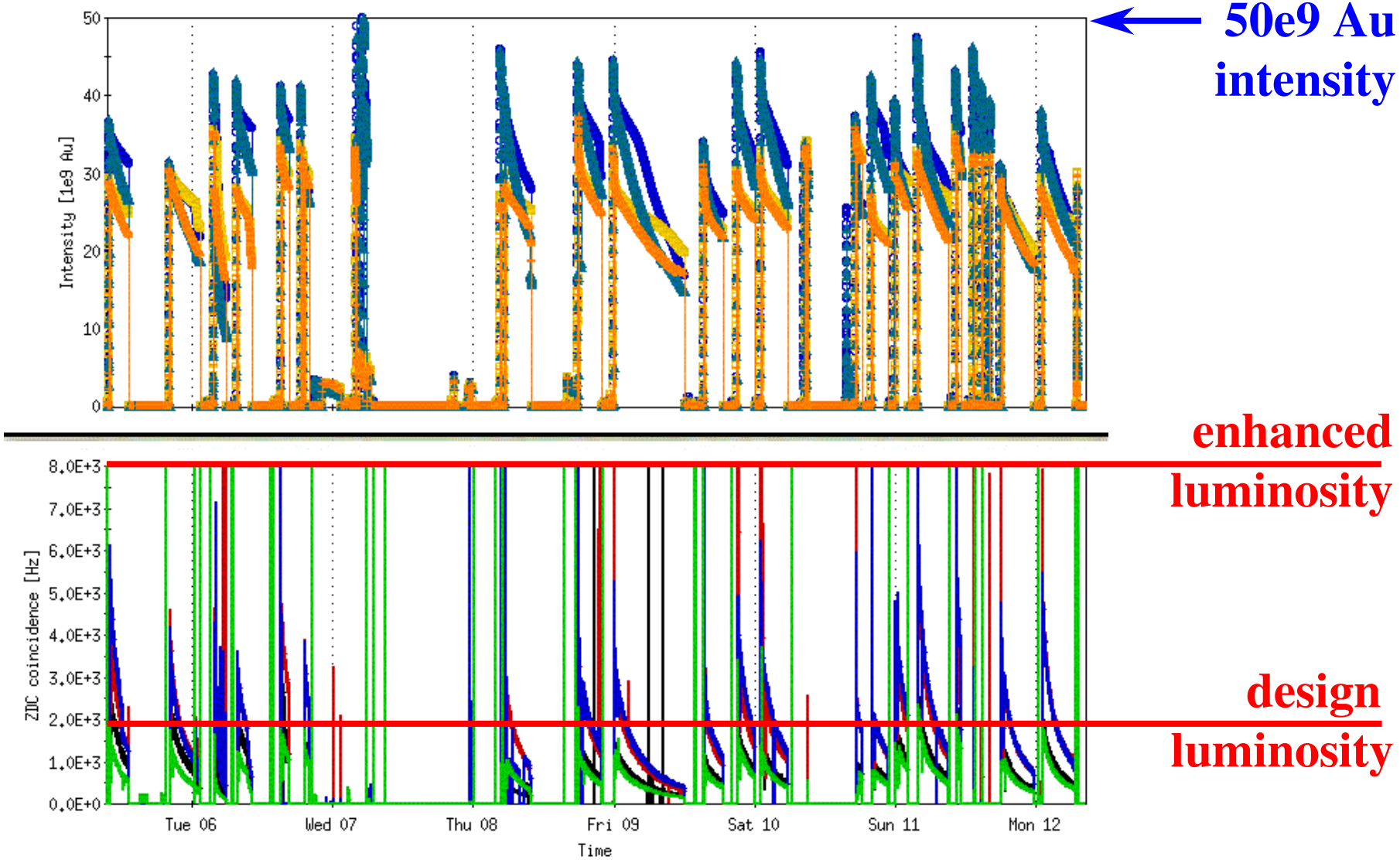
Todd Satogata, Johannes van Zeijts, Pete Cameron, Steve Tepikian, Keith Zeno, Mike Blaskiewicz, …

1. Measured/adjusted chromaticity on ramp
   → Critical for high bunch intensity to avoid instabilities
2. Demonstrated new IPM capabilities (R. Connolly, S. Tepikian)
   → Transverse matching
3. Injected 1.22e9/bunch
   → Record bunch intensity in RHIC
4. Accelerated 6x6 with 1e9/bunch



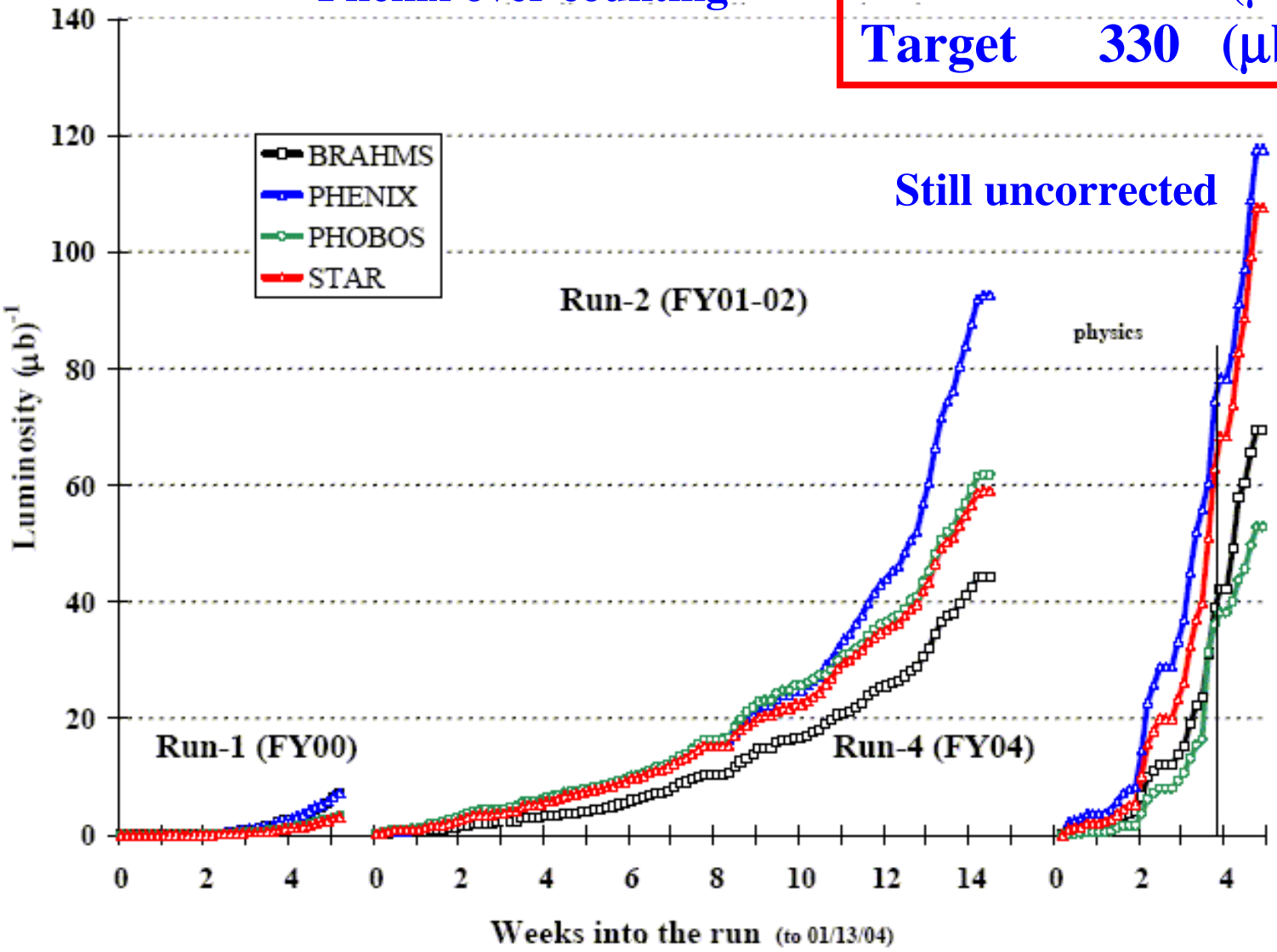
Design luminosity at STAR with 6x6 store (initially)

Stores during last week, Monday to Monday



Corrected for Phenix over counting →

Delivered 102.0 $(\mu b)^{-1}$ to Phenix
42.4 $(\mu b)^{-1}$ last week
Target 330 $(\mu b)^{-1}$



Future stores:

Star	×0.9
Phobos	×0.3
Brahms	×0.3

BROOKHAVEN NATIONAL LABORATORY

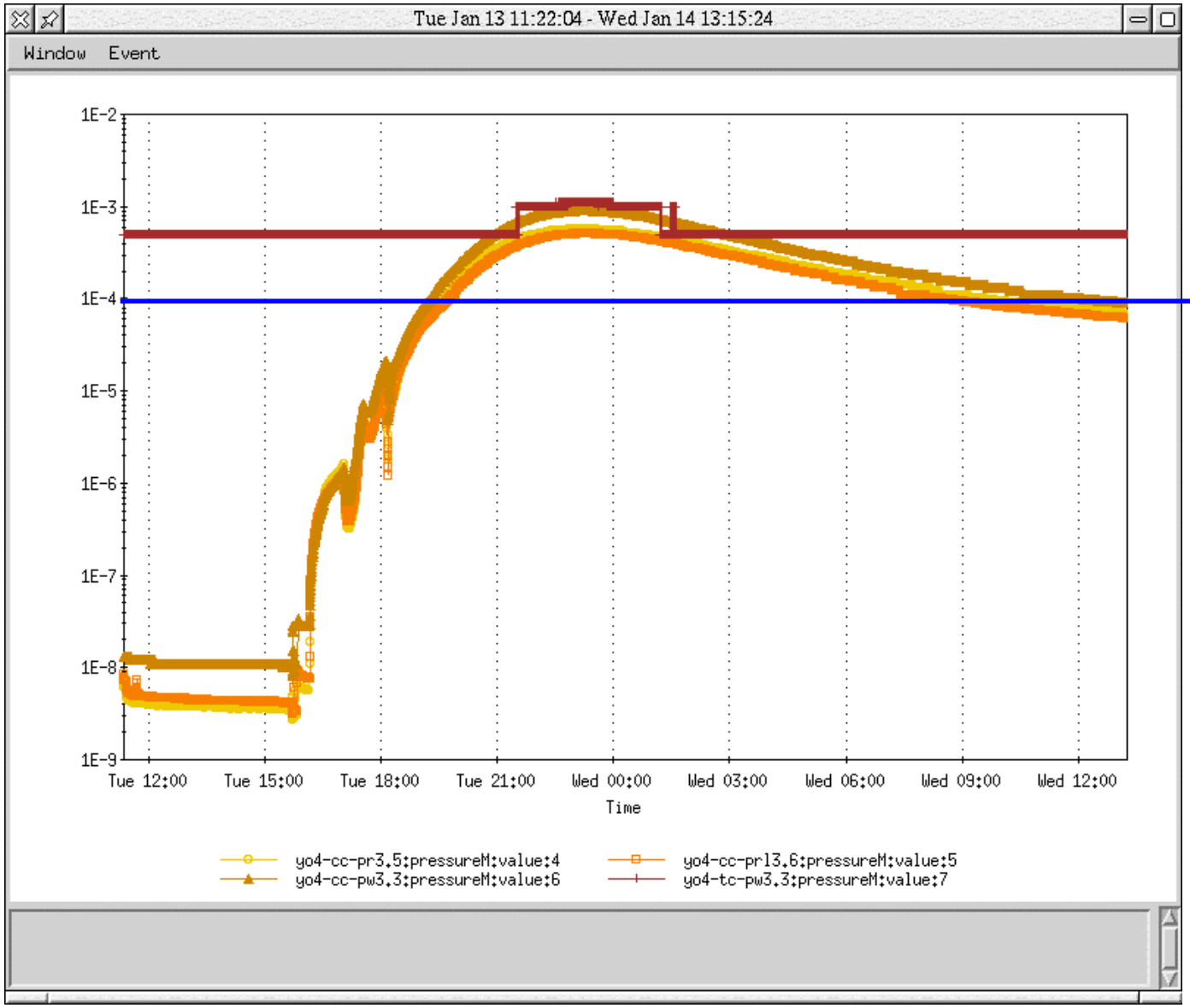
Main improvement effort this week:

Baking in IR4

- Started 4pm yesterday
- Blue beam operation from 8pm to 8am (Beam Experiments)
- May be able to start ion pumps at 4pm
- 2 hours with ion pumps before Beam operation begins (may have lower intensities for some time)
- Baking continues until Friday ~6am

May give another 15$(\mu b)^{-1}$/week, or +30% luminosity, main effort for this/next week

In addition: Landau cavity commissioning


Tue Jan 13 11:22:04 - Wed Jan 14 13:15:24
Window Event
1E-2
1E-3
1E-4
1E-5
1E-6
1E-7
1E-8
1E-9
Tue 12:00
Tue 15:00
Tue 18:00
Tue 21:00
Wed 00:00
Wed 03:00
Wed 06:00
Wed 09:00
Wed 12:00
Time
yo4-cc-pr3.5:pressureM:value:4
yo4-cc-pw3.3:pressureM:value:6
yo4-cc-pr13.6:pressureM:value:5
yo4-tc-pw3.3:pressureM:value:7

1e-4 Torr